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THE NEW COMMANDER OF THE MICHIGAN.

Lieut. Com. Robert M. Berry was relieved in December of command of the United States cruiser Michigan, the miniature war ship that looks after the interests of the United States on the Great Lakes, and Lieut. Com. Benjamin S. Richards was ordered to succeed him in the command.

The new commander of the Michigan, has had nearly 35 year's experience in the navy. He was born at Montrose, Pa., Feb. 8, 1845, and was appointed to the naval academy, then at Newport, R. I., in 1861, as an acting midshipman. He was warranted as a midshipman in 1862, and was graduated at Annapolis in 1866. His first assignment was to the Tacony, then he was transferred to the Osceola and then to the Monongahela during the autumn and winter of 1866. He was wrecked at St. Croix, West Indies, in November, 1867, during an earthquake, and returned north in the De Soto, in December of that year, serving on board that vessel in the spring of 1868. Then he was transferred as watch officer in the Saco in the West Indies. He was commissioned an ensign in 1868; master in 1869, and lieutenant in 1871. He served on the Supply and Terror in 1872; the receiving ship New Hampshire in 1873; the Portsmouth on the Pacific Station in 1874-5; the Lackawanna, North Pacific Station, in 1875-7; the receiving ship Franklin in 1877-8; at the Pensacola Navy Yard in 1881-2; on the Wachusett, on the Pacific Station, 1882-5. He was on ordnance duty, Washington Navy Yard, 1885-6; was executive officer of the Franklin in 1886-9; was commissioned a lieutenant commander in 1887; served on the Monocacy on the Asiatic Station, 1889-1892; and was on equipment duty at the New York Navy Yard from November, 1892, to December 3, 1894, when he was detached and ordered to command the Michigan, with headquarters at Detroit.

VERDICT AGAINST THE GREENWICH COMPANY.

The suit of the Waterman estate against the Greenwich Insurance Company of London to recover $5,000, the amount of an insurance policy claimed to have been placed upon the propellor Chenango April 9, 1892, which has been on trial in the United States District Court in Detroit for about two weeks, was decided on Fridey last, the jury bringing in a verdict for the defendants. The company claims that, although the insurance was placed April 9, it was not to take effect until April 20. The Chenango left port April 9, and was destroyed by fire on Lake Erie the following day.

The Chenango was insured in several companies, both fire and marine, and departed for Buffalo with a cargo of wheat. The application for insurance was made on the day she sailed and the insurance was to begin at noon that day. The steamer burned on the way to Buffalo and all the companies except the Greenwich paid their policies. The policy for that company, when it came, was dated April 20, and the company refused payment. The owners sued for $5,000, and gained a verdict in the United States Circuit Court. The company took the case to the court of appeals and it was sent back to Judge Swan's court here. The points at issue were on the usage in such cases, it being held by the plaintiff that the insurance began on the date of the application. The case attracted much attention among vessel owners and underwriters.

A NEW CANADIAN STEAMER.

It is now reported that the Richelieu and Ontario Navigation Co., Toronto, Ont., has decided to build a new steamer to cost about $200,000. The new boat will be a handsome steel steamer about 160 keel by 40 feet beam, having a passenger accommodation for 250 persons. All modern conveniences will be provided in lighting, heating, ventilating, furnishing and all high-class accessories to comfort. The new steamer will be launched early next summer and will go on the route between Montreal and Toronto. It has been stated by a reliable Richelieu and Ontario official that this steamer is just the beginning of a fleet that the company intend building in order to meet their greatly increasing business. The steel for the new steamer is to be ordered from Pittsburg, Pa.

QUARTERLY SHIPBUILDING STATISTICS.

The sailing and steam vessels built in the United States and officially numbered, as shown by the records of the bureau of navigation, Treasury Department, during the quarter ended December 31, 1894, is as follows:

	STEEL.		WOOD.			
	STEAM.		STEAM.		SAIL.	
	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic & Gulf	6	2,864 65	19	957.96	66	8,451.05
Pacific	1	2,556.37	3	572.38	9	221.98
Great Lakes	1	2,995.84	5	284.74	2	27.75
Western Rivers	1	13.04	10	1,495.31	....	.....
Total	9	10,429.90	37	3,310.39	77	8,700 78

	No.	Gross Tons.
Total Steam	46	13,740.29
Total Sail	77	8,700 78
Grand total	123	22,441.07
PREVIOUS QUARTER.		
Total Steam	84	13,878.68
Total Sail	134	11,697 66
Grand total	218	25,576.34

HARBOR IMPROVEMENTS AT SUPERIOR.

Major Clinton B. Sears, corps of engineers, U. S. army stationed at Duluth, Minn., in charge of river and harbor work at the head of Lake Superior, sent to Washington a report recommending the removal of considerable of the south pier at the Superior entry in order to make it easier for vessels to enter the harbor at that end and to obtain access the more easily to Allouez Bay, which is acquiring several large docks and is becoming an important factor in the commerce of Lake Superior.

On this bay there are already located the Duluth & Winnipeg railways' ore docks and the largest coal dock in the world, that of the Northwestern Fuel Co. The major has also reported in favor of that part of the Duluth and Superior Bridge Co.'s new bill providing for a single track instead of two for steam railway traffic, as the bill which was passed at the last session of congress was rather incongruous in this respect. However, he will not consent to the section that provides that the company need not keep the channel dredged in the vicinity of the bridge unless the secretary recommends.

ENTRIES AND CLEARANCES AT TOLEDO, O.

The books in the custom house at the port of Toledo show the following lake receipts during the season of 1894: Iron ore, 222,382 tons, coal, 118,512 tons; plaster and cement, 88,749 barrels; salt, 110,022 barrels; sugar, 111,910 barrels; lumber, 113,254,000 feet; logs in raft, 27,600,000 feet; number of vessels arrived, 2,077; total tonnage of vessels arrived, 966,431. Clearances for the season: Corn, 3,844,522 bushels; wheat, 12,734,578 bushels; flour, 341,556 barrels; 365,755 sacks; coal, 325,411 tons; oak timber, 1,176,380 cubic feet; number of vessels cleared, 2,049 tonnage, 957,850. This gives the port a total number of vessels entering and clearing for the season at 4,126 having a tonnage of 1,924,281. Taking the season from May 15 to December 1, this gives an average daily tonnage of 9,621 tons, and an average of 11 vessels in port each day. The actual weight of all receipts entering the port was 652,305 tons, and the weight of the shipments 906,988 tons, making a total of 1,559,293 tons.

THE LAKE FISHERIES.

"The Fisheries of the Great Lakes," is an interesting official document by Hugh M. Smith, M. D., assistant in charge of the division of statistics and methods of the fisheries.

Very little is known, except in a general way, by the public regarding the extent of the fisheries on the Great Lakes and the facts set forth may occasion some surprise.

One hundred thousand square miles is the area of the Great Lakes' system divided as follows: Lake Superior, 32,000; Lake Michigan, 22,000; Huron, 21,000; Erie, 9,500; Ontario, 6,500; St. Mary, St. Clair, Detroit, Niagara and St. Lawrence Rivers, Lake St. Clair, 9,000.

This enormous area supports a fish fauna that is extremely rich and varied. At least forty species of fish of recognized food nature are found in greater and less abundance. Among these are some of the most highly esteemed and vnluable food and game fishes in North America.

The fisheries of the Great Lakes, prosecuted by the people of the United States and Canada, are the most extensive lake fisheries in the world. The quantity of fish annually taken is about 150,000,000 pounds, having a value of more than $4,400,000. The wonderful fertility of these waters may be better appreciated from the fact that since 1880, not less than 1,400,000,000 pounds of good fish have been taken from the Great Lakes, the value of which was $42,000,000. In spite of that great inroad upon the finny tribes there has been no serious diminution in the general supply.

The Great Lake fisheries give employment to nearly 10,000 persons and the amount of capital invested is about $5,362,000.

NEWS AROUND THE LAKES.

CLEVELAND. O.

Special Correspondence to The Marine Record.

On Saturday the steamer C. J. Kershaw was purchased by W. H. Mack on a basis of $42,000 for whole.

Capt. Fick, who was compelled to relinquish command of the steamer Fedora last fall, is still very ill at his home in this city.

The price of 1895 ore depends very largely upon Rockefeller, the Minnesota and the Metropolitan companies. The other big concerns will hold out for fair prices until this trio has fixed the figures.

The Cleveland & Buffalo Transit Co. will expend about $15,000 on the steamers State of Ohio and State of New York during the winter. The work of overhauling and making improvements has already begun.

The event of the week at the port was the successful launch of the North Land from the yards of the Globe Iron Works Co., on Saturday afternoon. About 2,500 people attended to witness "the virgin plunge" of the great twin screw steel passenger steamer.

The committee appointed at the annual meeting of the local lodge of the Shipmasters' Association to make arrangements for the annual reception and ball, reported yesterday that the event will take place at Army and Navy hall Thursday evening, February 7. A committee on printing has been appointed and invitations will be out in a few days.

Mr. R. L. Peck, who was in the employ of the Minnesota Steamship Co.—Pickands, Mather & Co.—during the past season, has left this port for Chicago, to enter the employ of the Lake Michigan & Lake Superior Transit Co., as chief engineer of the passenger steamer Manitou and to act as superintending engineer of that company ashore when the Manitou is not in commission.

The steamer Olympia left the Ship Owners' Dry Dock on Monday after receiving a thorough recalking and part new stern. The steamer O. H. Ketcham docked this week for extensive repairs occasioned by stranding on White Fish Point in November. Repairs will amount in the neighborhood of $30,000.00. Steamer M. B. Grover docked on Monday morning for recalking all over. The steamers German and Saxon also dry docked this week.

Capt. F. D. Herriman, manager of the lake department for Bureau Veritas, has been in the city this week testing steel entering into the construction of the new steamer building for M. M. Drake and others at the yards of the Cleveland Ship Building Co. Capt. Herriman left for Everett, Wash., on Thursday to make a final survey and inspection of the new steamer built a the yards of the American Steel Barge Co. for the Pacific coast trade. It is now expected that she will make her trial trip on the 24th. Another keel will shortly be laid at the Barge yard works in Everett.

The Iron Trade Review, Vol. 28, No. 1, is a banner issue of 84 pages handsomely illustrated and containing halftone pictures of the principal or representative men engaged in the iron ore and iron and steel trades. This large New Year's issue is replete with valuable articles appertaining to the special field with which *The Iron Trade Review* is so closely connected and which it so ably fills, by publishing a neat, clean and reliable technical journal fifty-two times a year for the nominal sum of $3 to each subscriber. Editor A. I. Findley, of this city, and his associate, B. M. Gardner, of Chicago, are entitled to great credit for their journalistic and business ability in getting to the front with so excellent an edition as that of January 3.

The shipmasters at this port were justly indignant last week on account of a mass of matter having been printed purporting to be a wholesale revision of the steering and sailing rules which have stood the tests during thirty years' practice. I have not looked over this burlesque, but hear it reported that it commenced at Art. 1, and continued the revision away along to upwards of twenty sections and this, too, with but a few hours' consideration of this most important subject. Of course, the captains repudiated the whole thing and asked for a correction through the medium of the daily papers here. It apppears that the manuscript furnishing this startling revision was a pencil repetition in brief of the existing laws and was placed in this form so as to be more concise than the circular matter got out by the board of supervising inspectors. The only change or rather the objective point which all lake masters desire is to be permitted to use the passing signal under any and all conditions of weather, etc.

DETROIT, MICH.

Special Correspondence to The Marine Record.

The schooner Tokio was chartered here for wheat last week. She will load at once.

At the regular annual meeting this week, the Detroit Fire & Marine Insurance Co. elected officers, with William A. Moore president, James J. Clark vice-president, C. L. Andrews, secretary.

Capt. Alex McDougall left Superior for Everett, Wash., on Thurday. He carried with him a complete set of plans for the small high speed passenger steamer which it is designed to build on the Pacific coast for use between Seattle and Tacoma.

Capt. Thomas L. Beniteau is laid up at the United States marine hospital here. During the early part of last season he commanded the steamer J. B. Lyon, but was not in active service later. He formerly resided in Detroit, but his home is now in Cleveland.

Eight floating lights are to be placed along Hay Lake Channel at the opening of navigation in the spring. The floats are now being built at the government depot at the foot of Mt. Elliott avenue. The lights will be green and white.

Secretary Herbert, of the navy, has remitted the unexpired portions of the sentences of Commander Oscar F. Heyerman and Lieut. C. H. Lyman, found responsible by court martial for the loss of the Kearsarge. The officers have been placed on waiting orders.

The widow of the late Capt. Thomas Hackett, of the steamer Volunteer, received a draft of $1,000 last week, that being the amount of his life benefit in the Shipmasters' Association. Capt. Hackett fell dead of heart disease on board the steamer at the Detroit dry dock last summer.

As usual President Livingstone of the Lake Carriers' Association invited all the members to an evening's entertainment at the Opera House. The general impression is that Mr. Livingstone knows how to do a graceful thing at the right moment and he is invariably in a position to do it.

The Marine Engineers Beneficial Association, No. 3, has moved into new lodge rooms at the corner of Cass and Spencer streets, and held its first meeting there last Wednesday. The club parlors of the association are on the third floor over the Grand Trunk ticket offices, corner of Woodward avenue and Larned street.

At a meeting held at Saginaw, Wednesday evening by the lumbermen of the Saginaw Bay district, it was decided to invite the yard lumber dealers of Cleveland, Sandusky and Toledo to visit the valley on January 15, when they will be shown about and banqueted at the East Saginaw Club in the evening. About sixty visitors are expected.

U. Grant Grummond, manager of the Grummond Towing and Wrecking Co., has libeled the steamer Burlington for $5,000 for his wrecking bill, and he has had her moored at Moreton's dock. Although the vessel and her cargo belongs to him by his contract with the Canadian government for removing her, he thought best to take this step as a precautionary measure of possession.

On May 18, 1892, the schooner Josephine, loaded with pulp wood in tow of the tug W. H. Seymour, collided with the schooner Aloha in tow of the propellor Charles Hebard in the lower end of Big Lake George. The Josephine was sunk. Frank Perry, the vessel's owner, has brought suit in the United States District Court, at Detroit, against Charles and Charles S. Hebard, owners of the propeller, for $4,000 damages.

Marine Engineers' Beneficial Association No. 3, of Detroit, has elected the following officers: President, A. L. Jones; vice president, T. J. Kelly; recording secretary, Ed. R. Dungan; corresponding secretary, George Gourlay; financial secretary, Frank Kenyon; treasurer Edward R. Blanchard; conductor, Charles A. Fletcher; sentinel, John Coleman; chaplain, J. H. Finehart; representatives to national convention, J. M. Cronenwett and Edward R. Blanchard.

Casper Kuhn, for the past nineteen years keeper of the range lights at Grand Island, died at his home in Marquette December 28, of paralysis, aged sixty years. Mr. Kuhn had been in the light-house service thirty-three years, over half of his life, and was entitled to a place in the front rank of the veterans in that service on the Great Lakes. He helped to build the Marquette light-house, as well as several others on Lake Superior. He left a widow and four children. The pall bearers were all connected with the light-house service and appeared in full uniform, making a fine looking body of men. They were W. H. Prior, keeper of the Stannard Rock light; William H. Whealey, keeper of the Marquette light; Malcolm McDonald, Ralph Heater and Frank Witz, Stannard Rock assistants, and William Gilbert, Marquette light assistant.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The Lehigh Valley liners Clyde, Fred Mercur, Harry E. Packer, Oceanica, Robert A. Packer, and Tacoma will hereafter carry pole spars.

H. J. Mills, secretary of "The Dry Dock Association of the Lakes," has sent out notices announcing that the annual meeting of the association will be held at the Hotel Iroquois, Buffalo, on Thursday, January 17.

The docks and masonry of the Ohio basin at this port are to be repaired under a contract calling for an expenditure of $36,328. In addition to this the sum of $185,000 is to be expended next season in dredging Buffalo River. This looks like paying some attention to shipping and transportation interests.

The Buffalo Yacht Club held its annual meeting and the election of officers last week. Commodore Frank B. Hower was re-elected. The list of officers is as follows: Commodore, Frank B. Hower; flag commodore, Geo. B. Hayes; treasurer, W. C. Cowles; secretary, James L. Stone; measurer, Frank D. Wood; directors, N. O. Tiffany, D. E. Morgan, L. G. Northrup, J. S. Thompson, H. D. Williams, C. W. Cushman and H. M. Gerrans; regatta committee, Allen A. Monroe, W. S. Jones, Lewis E. Hill; fleet surgeons, Dr. E. P. Huzzey and Dr. Lee H. Smith. The club now has 222 members.

Capt. Daniel F. Bone died at his home here last Thursday, after only a few days illness. The late shipmaster began his lake career in 1859, after having sailed for a number of years on salt water. Capt. Bone had charge of a number of boats at different times and came to be known among lake navigators as a man of much ability in his business. During the last few years he has not had command of any boat, and for the last two years he had been employed as second mate on the Chemung. He sailed the Cohen for two years and later was second mate of the Wave. Capt. Bone was born in St. Johns, New Brunswick, and early took to sailing as an occupation. He received a slight education in the limited schools of his native town and when 10 years old went to sea. He followed the salt water until he was nearly 20 years old, when he came to the lakes, sailing for upwards of thirty years out of Buffalo. He was of a hearty robust constitution and up to within a couple of days of his death never knew what an hour's sickness was. He retired to bed on Wednesday night not feeling altogether too spry but went calmly to sleep. Early in the morning a member of the family found that he had passed peacefully away to his long home.

According to the *Courier*, Capt. J. H. Killeran, marine superintendent of the Northern Steamship Co., sailed on salt water for 30 years before coming to Buffalo and his stock of yarns, true and otherwise, is inexhaustible. One vessel on which he was mate sprung a leak, and all hands were put at the pumps to keep her clear of water. The men became disatisfied and declared that the captain must put into port forthwith. They went aft and demanded that the captain point out on the chart where they were as they thought he was mixed and did not know the vessel's position. Raising his right hand which was of ham-like size, the captain placed it on the chart covering a radius of 1,000 miles and said: "We are right there, boys." They took his word for it and returned to the pumps. Of course Capt. Killeran's yarn goes, but he might also have told the *Courier* man about the same captain's daughter who, while watching "the old man" prick off the course and distance at noon, picked up his dividers and measured her mouth and then asked the skipper now many miles the dividers spanned, when told the space was just two degrees or one hundred and twenty miles on the chart the girl nearly fainted, but recovered when she thought of the number of Florida oranges she could stow away in such a capacious cavern when they got into port.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

Mr. R. J. Cram is figuring with the Wolverine Dry Dock Co., to build a large and powerful harbor tug to handle his largest dredges at the foot of Lake Huron in the 21 foot channel.

The Kendall Marine Rept. Co., have been appointed agents for the U. S. Hydrographic office for this port and will keep on hand all the charts and sailing directions issued by the office as soon as they are out, Lake Superior, Soo River and Straits of Mackinac are now published.

The ship carpenters of this city are all leavlng for Milwaukee where much work will be done this winter as there is no work here of any account.

A steamer for Jesse H. Farwell is being built by A. Anderson, at Marine City. It is presumed that the machinery of the wrecked steamer Collwell will be placed in her.

Capt. John McArthur, the captain commanding the whaleback Christopher Columbus during the World's Fair. Speaking on the subject Capt. McArthur said: "During the year the Christy, carried 1,800,000 people. Not a passenger was injured and only one member of the crew was drowned. I suppose that for one season I met more newspaper men than any other man living. They came in pairs and quartettes. I found them all a jolly lot of fellows. In my opinion the Chr stopher Columbus will be cut in two and taken to salt water, where the boat will run between New York and Coney Island. The boat will carry 6,000 passengers."

Last fall when the county drain was being put through the farm of Mrs. Gardner, in the township of East China, a substance resembling cannel coal was unearthed at a depth of eight feet. A test of it was made, giving excellent results; it burned readily, giving forth a blue light similar to that emitted by anthracite coal, but was consumed more rapidly. Since then it has been burned as fuel by the occupants of the farm. At the spot where the discovery was made the vein varied from six to eighteen inches in thickness, but its extent is not as yet known; though, should the tests now being made by experts prove satisfactory, a company will be organized for the purpose of developing the mine and placing the product on the market. At another place on the farm a natural gas well exists and it is thought that oil might be found there. Several years ago prospectors bored for oil in this locality without attaining any appreciable resnlts.

December 31st. 1894, the steamer Mary made her last trip of the season between Marine City and Port Huron and will winter at Port Huron, where she will receive a general overhauling and be placed in shape for next season's business.

The St. Clair river is now completely filled with ice up to a point two miles north of St. Clair. Persons are crossing on the ice at Marine City and St. Clair, but it is still dangerous, as many air holes are found. There is very little ice coming down from the lake at present, and the ferries are not interfered with.

Amos James on Thursday presented The Times of this city with a copy of an ancient lake marine record, by J. W. Hall. The work deals with, and illustrates boats of the time, such as the Empire of 1884, the Phoenix of 1845, the Vandalia and others of similar type. Most of them have long been out of service but their history is well told in this book, which is yet in a good state of preservation.

The steam yacht U. C. Me. the machinery of which was purchased last summer by J. M. Eberts and placed in his new steam yacht, will be fitted this winter by B. J. Coller with a water tube boiler and triple expansion engine. She is now owned by C. F. Purdie.

TORONTO, ONT.

Special Correspondence to The Marine Record.

Some of our yatchtsmen have been in the habit for a few years past of taking a sail around the bay or out into the lake just to enable their proclamation of the fact that they had done so, on Christmas and New Year's day. Last Christmas they did so as usual, but before the New Year had come in Jack Frost had claimed pre-eminence and had covered the harbor waters and those of the Rivers Don and Humber with a glistening coat of mail. Only long years ago were skaters and ice-yachters blessed with such glorious ice as they are enjoying here this season. New Year's day was a bonanza to skaters. Then the surface of the bay was literally black with men and maids on flying feet. How they did pronounce benedictions on those careful health authorities who have forbidden the cutting of ice on Toronto Bay! Last Thursday, Jan. 3, a brisk gale blew from the west, so that a big section was blown out of the centre of the ice in the harbor. Again it has frozen over, however. With practically no snow, ice-boating was never better than it is at present. These dates of the freezing of Toronto Bay are interesting:—In 1894-5, Dec. 29; in 1893-4, Dec. 30; in 1892-3, Jan. 22; in 1891-2, Jan. 5; in 1890-91, Jan. 4; in 1889-90, March 1; in 1888-9, Dec. 20; in 1887-8, Dec. 24; in 1886-7, Dec. 4; in 1885-6, Jan. 8; in 1884-5, Dec. 19; in 1883-4; Dec. 1. During the winter of 1889-90, the bay may be said to have not been frozen at all. We had no snow that winter.

No better criterion of the moribund condition of the Canadian marine could be given than is presented by the meagre fleet of vessels wintering at this port. Outside the three great passenger steamers belonging to the Niagara Navigation Co.,—Chippewa, Cibola and Chicora—the only other big craft in the harbor are Algonquin, Rosedale and Campana, the latter out of commission all summer. Considering the present condition of the freight market all along the line of lakes, it may safely be put on record that the big iron propellers, Algonquin and Rosedale are the only freight-carriers lying here capable of coping with American craft in competition for cargoes. These two fine vessels belong to the St. Lawrence & Chicago Steam Navigation Co., limited, whose headquarters are in this city. Mr. J. H. G. Haggarty is general manager of the company, and that well-known and genial mariner, Captain Crangle is superintendent. These two gentlemen were the astute individuals who recognized that if our marine was not to totally decay they must construct vessels of enormous carrying capacity, for there is no money in the coarse-freight transporting trade for small crafts. Nor can there be, for the tendency as the editor of THE MARINE RECORD has often pointed out, is ever toward reaching the seacoast with grain at as little expense as possible. Next in importance at this port come the numerous fleet of the Mathews Line—but their vessels are all wooden.

J. A. C.

SAGINAW, MICH.

Special Correspondence to The Marine Record.

The tugs Robert Weickman and Fannie H. are both being compounded.

Carkin, Stickney Co. have bought the engine of yacht Restless and will put it into the tug James Puller.

Capt. J. R. Moiles, of the tug Tom Dowling, now located at the "Soo" was calling on friends during the week.

Capt. John Terry, who sailed the steam barge C. H. Green last season, has sold out his interest to the other owners.

The Hiram Sibley yacht Restless is having her balanced compound replaced by a triple expansion at Wheeler's.

The last craft to lay up was the tug J. P. Logie, going into winter quarters on Monday. Capt. Devaney was the first out and last to quit this season.

Capt. J. N. Stewart, for many years in the boat business here, and now of Toledo, is visiting friends. The captain recently lost his steamer H. C. Thatcher by fire.

The steam barge C. H. Green is having a new boiler put in her by Wicks Bros., the double deck is being taken off and hereafter she will sail as a single decker.

Isaac Bearinger's yacht Wapiti is being lengthened nineteen feet, entirely re-plated and a new Babcock & Wilcox boiler put in her at an expense of $8,000, at F. W. Wheeler & Co.'s yard.

The schooner Ida Corning, owned by Capt. George Ryan and others, is having nearly an entire new port side put into her. Capt. Ryan has charge of the repairs of six boats belonging to the Corning-Edgar-Ryan fleet.

The Moiles Bros., owners of the tug Gladiator, have bought the boiler being taken out of the Green and will put it in their boat. The boys struck a snap in their purchase and will surprise the "Soo" tugs another season.

Louis Quinnin, who recently purchased the yacht Fanny H. through Capt. Harry Shaw, is putting in a compounded engine, also giving her a clipper bow and twenty inches more beam. She will be fitted with a Trout wheel.

The following craft are in winter quarters at this port: Steamer Don, steam barges Oscoda, C. H. Green, E. F. Goued, A. A. Turner, Maine, Derrick, Sanilac; barges H. W. Hoag, McDougall, B. B. Buckhout, Fostoria, Ida Corning, Our Son, A. C. Keating, Conrad Reid, Belle, H. W. Hubbell & Co.'s No. 1 dredge, Lizzie P. Betts, Hattie, C. G. King, Dorcas Pendell; tugs J. P. Logie, Andrew McLean, Willie Brown, Arthur, Gladiator, Pioneer; yachts Mary Bell, Masonic, Fannie H. Ethel, Osie, Alcratz, Lillian, Wanaka.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

J. A. Francomb is here from Detroit looking after the repairs on the steamer W. R. Stafford's hull and machinery.

Capt. H. L. Shaw arrived here Monday from Bay City to look after the loading of the steamers Charles A. Eddy and Selwyn Eddy.

Carr & Blair chartered the steamer Merida for oats, South Chicago to Buffalo, for winter storage and delivery in the spring at 1¾ cents per buseel.

Palmer, Cook & Calbick chartered the steamers John N. Glidden for wheat at 2¾ cents and New Orleans for oats at 1¾ cents, both to Buffalo, the steamer Everett for corn, South Chicago to Ogdensburg at 4 cents, all for winter storage and delivery in the spring.

Elphicke & Co. chartered the schooner Thomas L. Parker for 45,000 bushels of corn to Ogdensburg at 4 cents for winter storage and delivery in the spring.

Capt. John Prindiville chartered the schooner Sunrise for clipped oats to Port Huron at 1¾ cents for winter storage and delivery in the spring.

J. G. Keith & Co. chartered the steamer Chas. A. Eddy and barge Iron Cliff for wheat to Buffalo, at 2¾ cents, sor winter storage and delivery in the spring.

The steel steamer S. S. Curry was loaded last week at the Illinois Central elevator with a cargo of 246,603 bushels and 14 pounds of oats. This is by far the largest cargo of oats on record. J. P. Coughlin, the well-known stevedore, did the trimming with a crew of twenty-four shovelers.

At Miller Bro.'s shipyard the steamer W. R. Stafford is in dry-dock for a piece of new keel aft, part new stem, new stern post and stern bearing bracket, a new rudder, some bottom planking and some recalking; the tug A. B. Ward is in for some new frames and bottom planking; the O. S. Richardson Fueling Co.'s scow derrick, Spring Heel Jack No. 2, for new planking on sides and calking.

Walch & Wyeth agents in the city for the Keasbey & Mattison Co.'s Magnesia sectional steam pipe and boiler covering have received orders to cover the boiler of the steamer W. R. Stafford. What C. S. Petrie, fire marshal and department secretary of the Chicago fire department, says of the Magnesia sectional covering: "During my number of years' service as fire marshal for the city of Chicago, I have had experience with all kinds of steam pipe coverings, and have always endeavored to use the best, as I am well aware the best is the most economical and the cheapest in the long run. Since you have covered the boiler of the fire boat "Yosemite" with Magnesia sectional covering, I am convinced that it is far superior to anything we have ever used before. Congratulating all users of steam that there is such an efficient article in the market as your Magnesia sectional covering."

The Vessel Owners' Towing Co., J. L. Higgie, president; Jesse Spalding, vice-president; N. K. Higgie, superintendent; J. L. Higgie, Jr., secretary, and J. H. Witbeck, treasurer; have now a fleet of twelve tugs besides an equipment of fire pumps and section hose, steam pumps, towing hawsers and employ competent submarine divers. The foregoing is all told on a very attractive calendar for 1895, which the company are now mailing around to vessel owners, masters, and other patrons.

VISIBLE GRAIN SUPPLY.

THE stocks of grain in Chicago elevators and afloat last Saturday evening were 26,698,000 bushels of wheat, 3,297,000 bushels of corn, 2,032,000 bushels of oats, 148,000 bushels of rye, and 31,000 bushels of barley. Total, 32,206,000 bushels of all kinds of grain, against 25,420,000 bushels a year ago. For the same date the Secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 87,887,000 bushels of wheat, 10,672,000 bushels of corn, 8,826,000 bushels of oats, 464,000 bushels of rye, and 2,875,000 bushels of barley. These figures are smaller than the corresponding ones a week ago by 675,000 in wheat and larger by 1,042,000 in corn. The visible supply of wheat for the corresponding week a year ago decreased 275,000 bushels.

MARITIME LAW.

DININNY v. STEAMBOAT SAM SLOAN.

U. S. District Court, Southern District of New York.

COLLISION—OVERTAKING VESSEL IN HELL GATE—ALTERATION OF MASTER'S REPORT IN STEAMBOAT INSPECTOR'S OFFICE—Where a steamboat overtaking a steam yacht in Hell Gate, attempted to pass between her and Hallett's Point, but was swung by the tide against the yacht, it was held that the steamboat was solely in fault for the collision, (1) for attempting to pass at that place, and (2) for delaying her signal to indicate her purpose until close abroad the yacht when there was no time left for safe manœuvring.

Comment by the court on alteration of a master's report of a collision filed in the office of the steamboat inspectors.

FRANKLIN SUGAR REFINING CO. v. STEAMSHIP SILVIA.

U. S. District Court, Southern District of New York.

DAMAGE TO CARGO—OPEN PORT COVER—OWNER NOT LIABLE, HAVING USED DUE DILIGENCE TO MAKE SHIP SEAWORTHY—ACT OF FEB. 13, 1893.—A steamship set sail with one of her iron port covers not closed; the port, however, had a proper iron cover. Owing to the open iron cover, the glass front light was broken during the voyage and water was thereby admitted which damaged the cargo. This suit was brought to recover for such damage. The Act of Congress of Feb. 13, 1893, provides that if the owner of a vessel shall exercise due diligence to make the vessel in all respects seaworthy, she or her owner shall not be held responsible for damage resulting for faults or errors in the management of the vessel. Held, that in supplying proper iron port covers, the owner had exercised "due diligence to make the ship seaworthy" as regards the ports; and that the omission to close the port was a "fault or error in the management of the vessel," for which the owner of the ship could not be held responsible. The libel was therefore dismissed.

U. S. District Court, Southern District of New York.

GENERAL AVERAGE—CARGO SHARE COLLECTED BY SHIPOWNER—INSOLVENCY—LIEN ON SHIP—LACHES.—1. Where certain cargo was properly jettisoned and an average bond duty taken thereafter by the master of the ship under which the cargo's share of the general average was sometime afterwards collected by the shipowner, it was held, that the ship's duty was, as respects the cargo delivered, wholly performed, and no lien against the vessel existed for the money so collected.

2. But the proceeds of the ship were held liable to an insurance company which had became subrogated to the rights of the cargo owners, for the ship's own share of the general average, although, by reason of the adjustment having been made in a foreign port, and delay by the ship owner, a mortgage had been placed upon the ship before the average had been adjusted, which mortgage, it is claimed, should be preferred to the general average charge by reason of the laches of the ship owner in settling the loss.

BROWN J.

The above libel was filled to recover a sum due for general average on account of the jettison of 100 cases of turpentine. The Libelant Insurance Co. as insurers, has paid Crossman & Co., the shippers and owners of the goods, for the loss of the turpentine; that the turpentine was shipped under a bill of lading which excepted losses arising from perils of the sea or jettison; that the jettison was a proper one under the circumstances of the voyage; that an adjustment of the general average against ship and cargo was made after the arrival of the ship by Johnson & Higgins, adjusters at New York, that the whole average amouut payable on account of the jettisoned turpentine was $533.69; that the United States & Brazil Mail Steamship Co., the owner of the Allianca, upon the arrival of the vessel at Rio, took an average bond from the cargo owners for the payment of their shares when adjusted, and subsequently collected substantially all the amounts payable by the cargo according to the adjustment, amounting to about one-half of the whole average, and further that the Steamship Co. became insolvent in February, 1893.

Although the Allianca and the Steamship Co., her owner, were not liable for the act of jettison itself (Lawrence v. Minturn, 17 How., 100), the ship remained bound to contribute its proper share of average, as the same should be afterwards properly and legally adjusted, so as to idemnify the owner for the property that had been lawfully jettisoned for the common benefit of ship and cargo. The pro rata share thus legally charged against the ship in general average, became also a maritime lien upon her, in favor of the owner of the turpentine, and of the libelant, by subrogation. Dupont v. Vance, 19 How., 162, 168-172. It has also been adjudged that had the master, upon the arrival of the ship at the foreign port, neglected to take a proper average bond from the cargo owners in the interest of the property jettisoned, whereby the remedy of the owner of the property jettisoned might be lost or imperiled, such an omission would be a breach of maritime duty owed by the property jettisoned, which would make the ship responsible for the shares payable by the cargo. See Heye v. The North Lloyds, 33 Fed., 60, and cases there cited.

There was no such neglect, however, in the present case. The average bond was taken, and the share payable by the cargo was some time afterwards collected by the carrier company for the benefit of those interested. As respects this part of the claim, plainly there was not originally any lien upon the ship; and there was no breach of duty by the master in the delivery of the goods saved, since a proper bond was taken, and the ship's duty was thereby wholly performed as respects the cargo delivered. I do not think the long subsequent collection of average by the ship owners from the consignees created any new and additional lien on the ship for the cargo's share; or that it made the ship, in effect, a guarantor of the continued solvency of the Steamship Company for the libelant's benefit. I cannot find, therefore, that any lien ever attached upon the Allianca in respect to the shares of average payable by the cargo, and afterwards collected by the Steamship Company; and therefore cannot sustain any claim against the proceeds of the Allianca for the share of the general average payable by the cargo.

As respects the ship's share of the general average charge, viz.: the sum of $264.80, it is contented by the counsel for the Trust Company that the lien of the libelant has been lost by laches. But I do not think the circumstances are sufficient to sustain this contention, although the jettison that gave rise to the lien happened before the mortgage was executed, the average was not adjusted, nor was any claim upon the ship capable of enforcement, until nearly a year and a half after the mortgage was given. Up to that time the lien was inchoate only, and there were no laches.

The lapse of time is, I think, reasonably accounted for under all the circumstances of the case. The situation of the mortgagee cannot thereby have been changed or prejudiced in the least; nor is it conceivable that any different action would or could have been taken by the or mortgagee or the bondholders, had they possessed perfect knowledge of this small lien and of its non-payment; since the default by the Steamship Company in the payment of interest on the mortgage bonds on the 1st of January, 1892, some months anterior to the libelant's notice of the average adjustment, though the interest then due was a very large amount, led to no steps whatever by the bondholders or the mortgagee to enforce the mortgage, until after the company's failure. No case has been cited in which the delay under such circumstances has been held to discharge the lien.

Decree for the libelant for $264.80, with interest and costs.

Dated, New York, November 27, 1894.

LAKE TRANSPORTATION ADVANTAGES.

The *Iron Trade Review* published in its last issue a characteristic letter from Charles E. Wheeler, superintendent of the transportation department of the Cleveland Chamber of Commerce, in which Mr. Wheeler states in part as follows:

North of us extending as far west as Duluth and as far east as navigable water is found is a route whose cost of maintenance is practically naught, monopolized by no corporation, as free to the fisherman's dory as to the palatial Northwest. Over that route and through the Sault 12,639,872 net tons of freight were transported in 1894, the equivalent of 500,000 car loads of 25 tons each. Load this freight in cars and couple them together and the train would span the continent. A stately commerce this, whose future growth he were a rash man to prophesy. The record is this: A propeller at Ashland or Two Harbors is loaded with 3,000 tons of ore, the boat trimmed and under way for Cleveland 55 minutes after touching dock. Three and a half to four days thereafter her cargo is discharged upon the docks at Cleveland, the boat loaded with coal and within ten hours after landing steaming north again. This means a transportation whose cheapness may be best appreciated in the simple statement that it costs less to bring a ton of ore to Cleveland by boat from the Lake Superior ranges than it does to bring a ton of coal in by rail from 60 miles to our south. From a transportation or traffic standpoint, then, the account stands as follows:

Coal, 60 miles, southeast.

Fluxes, 50 miles, west.

Iron ore, 60 miles northwest (reducing the water haul to an equivalent rail haul).

But this is not all. Along these lakes dwell over 3,500,000 people at ports of entry, a market of importance in itself. The merchandise tonnage via the Great Lakes is increasing each year. It has assumed such proportions as to justify the Great Northern railroad in building a fleet of boats to attend to it, and to equip at an expense of $1,400,000 two propellers for passenger traffic exclusively. It has so enlarged that freight and passenger boats ply daily between Cleveland and Buffalo, Detroit and Lake Huron points, for Chicago, Milwaukee, Duluth, Ogdensburg, Montreal, etc. These boat lines pro-rate on through bills of lading with the roads diverging from ports of entry; they bring to our doors the Canadian Pacific, the Northern Pacific, the Great Northern, all the roads out of Chicago, the New York Central & Hudson River, the Delaware, Lackawanna & Western, the Lehigh and other roads at Buffalo; they open up multiplied means of communication with the world. In vessel property Cleveland alone has $18,000,000 of capital invested.

During the past season certain articles in the iron list were carried in Portland, Oregon, at 20 cents per 100 pounds. Compare the all-rail and the rail and water rates to St. Paul, Minneapolis Stillwater, and common points from Cleveland during the past season:

	Class.					
	1	2	3	4	5	6
Rail	92	82	63	40	33	28
Rail and water	30	25	20	18	15	12

	Iron list.	
	C. L.	L. C. L.
Rail	26½	39
Rail and water	8	12

These are published quotations and have no reference to wild rates to lake ports, rates which have been as low as 5 cents per 100 pounds to Duluth. It has cost less to send 100 pounds of iron from Cleveland to Duluth or even St. Paul than to transport it from Pittsburg by rail to Cleveland; it has cost the same to send the same hundred pounds from Cleveland to the Pacific coast that it has to freight it by rail from the Pittsburg district or interior Illinois points.

During the year 1894, canal boats have been running between New York and Erie, Pa. Already two large Cleveland manufacturers have made arrangements by which they will use the same means to reach the east and New England. Thousands of tons of high-class freight are annually carried from New York to Cleveland in canal bottoms at rates ridiculously low. And with the Welland Canal deepening to 14 feet; with New York committed to deepening the Erie Canal to nine feet; with the agitation for deep waterways to the sea, by Canada, the states bordering on the lakes and the northwest; with the government committed to a 20-foot channel from Duluth to Buffalo, it seems certain that the importance of the Great Lakes as a means of cheap transportation is far from being fully realized.

On June 29th, of last year, there was unloaded at Cleveland a cargo of sixth-class freight, the through all-water rate on which, from Liverpool, England, was $3.70 per ton. Bulk was broken at Montreal and freight re-shipped from that point. It has been possible to duplicate the performance this year at $3 per ton, that being the published rate. Cement has been shipped from New York to Cleveland by canal, during the past season, at the rate of 28 cents per barrel, or 7 cents per 100 pounds. The use made of the Erie Canal by Cleveland manufacturers and merchants is more generous than suspected; it is claimed that during navigation more than one-half of the west-bound tonnage seeks that outlet. The average time via. this route between New York and Cleveland, is fourteen days. A comparison of rates, New York to Cleveland, via. all water; rail and water, and all rail is appended:

	Class.					
	1	2	3	4	5	6
All rail	51	44	35	24	21	18
All water	30	25	20	18	16	14
Rail and water	49	42	33	23	20	17

Possessing such advantages for manufacture and transportation, with ample banking facilities, with the contour of country such as to admit of many and cheap sites, with a municipal water service excelled in efficiency by none and in cheapness by but two other cities in America, with a good and economical market for labor, a system of interchange between railroads that entails no switching charges upon the shipper—the steady growth of the city from 261,353 in 1890, to 325,000 in 1894, after an increase of over 60 per cent. in the decade between 1880 and 1890, is not out of proportion with her resources and demands.

LAUNCHES OF THE WEEK.

LAUNCH OF THE STEEL SCHOONER MALTA.

The steel schooner Malta built to the order of the Minnesota Steamship Co., Cleveland, O., was launched from the stocks of the Chicago Shipbuilding Company's shipyard on the Calumet, Thursday afternoon. The dimensions of the Malta are as follows: length over all, 320 feet; length on keel, 302 feet; breadth molded, 40 feet; depth molded, 24 feet. Her dead weight ability equals 3,000 tons on 14½ mean draft of water. She has nine cargo hatchways, each eight by twenty-eight feet. constructed in a manner, so as to secure extra longitudinal strength in the hull without curtailing the loading and discharging facilities. The double bottom is 54 inches in depth, and is especially strengthened, the plating being heavy and supported by six girders on each side, in addition to the center keelson and half-breadth intercostal keelsons.

One special feature of this vessel is that her frames are extra strong, and she is triple riveted at the butts of every strake of plating. These strong points and her large stringer plates will make her class as one of the strongest vessels on these waters.

Among the visitors at the shipyard to witness the launch of the Malta were Sinclair Stuart, of New York; chief surveyor for the U. S. Standard Register, the classification society under whose rules she was built Joseph R. Oldham, naval architect and surveyor, and Captain H. A. Root, of Cleveland; W. L. Brown, W. I. Babcock, and many of the residents of Chicago attended the launch, which was in every way most successful.

A sister vessel to the Malta is nearly completed and will be launched from the same yard in about three weeks.

THE SANDUSKY-ISLAND STEAMBOAT CO'S NEW PASSENGER STEAMER.

The Detroit Dry Dock Co., launched on Saturday a fine side-wheel steel passenger steamer. The craft that the Wyandotte yards have been working on all winter for the Sandusky-Island Steamboat Co., was launched on Saturday afternoon, and was one of the prettiest launches made at those yards. The new boat is 175 feet over all, about 30 feet beam, and 30 feet 6 inches in depth. She will have a Fletcher-Harrison engine, and the latest pattern feathering paddles. The steamer was towed to the Detroit yards Monday, where her boilers will be set and her cabins built.

The Arrow, is the name chosen for this new candidate for public favor. She will ply on the route so long cared for by the City of Sandusky, running from Sandusky to the Lake Erie Islands. Her owners will spare no expense in fitting her up. She will be ready for business at the opening of navigation. Not much is said about the speed of the Arrow, but her designer, Frank E. Kirby, consulting engineer of the Detroit Dry Dock Co., her builders and her owners, think the name is not a misnomer. Capt. George Brown will command her.

LAUNCH OF THE TWIN SCREW STEEL PASSENGER STEAMER NORTH LAND.

The event of the week in Cleveland marine and shipbuilding circles has the successful launch on Saturday afternoon from the yards of the Globe Iron Works Co., of the splendid twin screw steel passenger steamer North Land sister ship to the North West, the latter ship being launched just a year previous to the day.

It is estimated that 2,500 people attended the launch although the weather was cold and bleak.

The launching arrangements were similar to those of one year ago. Opposite the vessel, amidship, a stand had been erected, where the launching party, representing the builders were seated. This party consisted of President H. M. Hanna, of the Globe Iron Works Co., Mrs. Hanna, Miss Lillian Hanna, Miss M. Gertrude Hanna, Mrs. John F. Pankhurst, Mrs. Wright, Miss Harriet Wright, and Mrs. E. C. Pechin. On the christening stand, directly under the bow, were officers and social representatives of the owners, the Northern Steamship Co., General Manager John Gordon, Assistant General Manager and Mrs. F. P. Gordon, Mr. and Mrs. Luther Allen, Mr. and Mrs. Ryerson Ritchie, Miss Lucille Dunbar, Mr. Cristy, of Buffalo, and Miss M. Payton, of Duluth.

Promptly at 2:30 o'clock Miss Gertrude Hanna pressed an electric button on the launching stand. This set ringing gongs at the bow and stern of the ship and the great ship, freed from the stocks, glided steadily and evenly down the ways. As she moved passed the christening stand, Miss Payton struck her bow with a beautifully decorated bottle of champagne. And a flood of the sparkling wine splashed over the stem an instant before she took the plunge, making one of the most exact launches ever witnessed in this or any other country.

As we have stated, the North Land is a sister ship of the North West, which was launched at the same yard a year ago. The only difference is that the new boat will have twelve more large staterooms, with baths, etc.

The principal dimensions of the boat are: Length over all 383 feet, length between perpendiculars 360 feet, molded breath 44 feet, molded depth 26 feet. Her engines are two vertical quadruple expansion, each of 3,500 H. P., higher pressure forward, followed by first and second intermediate and low pressure. The cylinder sizes are high pressure 25 inches, first intermediate 36 inches, second intermediate 51 1-2 inches, low pressure 74 inches, stroke 42 inches. The crank shafts are of wrought iron, built up in four duplicate interchangeable parts, 13½ inches in diameter, with a crank pin 14 inches in diameter by 16 inches in length. The crank shafts have solid forged couplings and are fitted with straight turnbolts. The propeller wheels are four-bladed, sectional, 13 feet in diameter by 18 feet pitch.

The boilers are the Belleville patent water-tube system; their nominal evaporative efficiency will give the main engines 7,000 horse power and the auxiliaries 500 horse power more, with natural draft. The boilers are arranged in three separate batteries, of which it is necessary to use only one between Buffalo and Port Huron.

While the cabins and wood work of the North Land are farther advanced than on the North West at the time of her launch, the machinery is said to be hardly so near completion. According to present arrangements she will be delivered to her owners about June 1, and will go in a regular service on the third Friday of that month, nearly a month after the North West goes into commission, she beginning her first trip on the last Tuesday in May.

A number of out-of-town people witnessed the launch, among them being Mr. Sinclair Stuart, of New York, representing the United States Standard Register of Shipping, which gives the ship the highest class. Officers of the Northern Steamship Co., besides those already mentioned, were present, as follows: T. P. Carpenter, general passenger agent, Captain J. S. Killerain, marine superintendent; W. S. Cartright, purchasing agent; Stewart Murray, general freight agent; J. M. Bartle, R. S. Hair, all of Buffalo; Abner Crossman, agent at Chicago; E. B. Clark, agent at Detroit; and Robert Logan, superintendent of construction, Cleveland. Among the visiting newspaper men were Eben P. Dorr, Buffalo Times; C. L. Daniel, S. G. Blythe, Buffalo Express; Charles H. Ball, Buffalo Inquirer; T. G, O'Brien, Buffalo Courier; and W. D. Cochran, Toledo Bee.

Prominent among the visitors who witnessed the launch were, Col. and Mrs. George A. Garretson, Mr. L. E. Holden, Col. James Pickands, Capt. and Mrs. George P. McKay, Harvey H. Brown, Miers Coryell of New York, Robert Wallace, A. C. Saunders, H. B. Nye, L. Dean Holden., W. A. Luce of Erie, E. B. Holland, P. J. Benbow, F. L. Lehman, of New York, F. A. Sterling, W. D. Taylor, H. H. Rudd, Howard Eells, G. O. Baslington, Mr. and Mrs. J. C. Gilchrist, Miss Richmond of Grand Rapids, Miss Marion Smith, Miss Anna Smith, Miss Lena Martin of Oberlin, Ollie Smith, R. I. Ireland, Christian Martin, Major W. B. Stockman, Capt. Munson, U. S. Army, Mr. and Mrs. L. W. Sheldon, L. P. Smith, Frank Wright, C. C. Harris, Capt. Campau, Frank Brobst, B. B. Inman of Duluth, Herman Holmes, D. Jay Collver, Capt. James Lowe, Capt. Frank Brown, L. C. Hanna, M. A. Hanna, J. D. Connolly, J. N Ashmun, T. F. Newman, Harry Rogers, Capt. Chris Allen, officials of the Globe Iron Works Co., W. F. Herman, E. L. Patterson, Capt. W. B. Guyles, and Miss Wilson. Captain Murch, with, as the common parlance states others too numerous to mention.

ACTING-SECRETARY of the Treasury Hamlin, has decided that owners, masters, etc., of American vessels, in order to receive the benefits of the law providing for the free withdrawal of supplies in foreign ports should they become dissatisfied with the decisions of collectors of customs, must within ten days after payment of the duties file notice of objection, and appeal to the secretary of the treasury within 30 days, to receive consideration.

TO SUSPEND A CLAUSE IN THE FOG SIGNAL RULES.

At the regular weekly meeting on Friday of the Shipmasters' Association of Cleveland, Lodge No. 4, the entire session was consumed in the further discussion of the steering and sailing rules followed by ships under the law of 1863, and talking over such changes as are generally desired. While the Cleveland ship masters have taken the initiative in this matter, they do not wish to be looked upon as fixing up a set of rules to which they will ask the assent of all others. Their sole object is to cover as well as they may every point that will come up in navigation, and to suggest rules therefor, which will not conflict with the existing steering and sailing laws any more than is absolutely necessary. The rules, when they are unanimously endorsed will be submitted to the Lake Carriers' Association at its annual session in Detroit this week with the request that a committee of practical men be appointed to go over the proposed code, and carefully consider each rule, afterwards to make such suggestions regarding revision as they may see fit. The rules will also be presented to the Grand Lodge of the ship masters, at its meeting at DeDeroit a week later. It would, of course, be more in form to submit the rules to the grand lodge first, but the Cleveland shipmasters are doing this work chiefly from an independent standpoint, and desire to save time and secure for the rules the greatest amount of consideration and criticism possible before they are finally sent to Commissioner of Navigation Eugene T. Chamberlin, as what the lake ship masters desire. The proposed rules are not nearly in shape for publication, but the following statement, as adopted by the Cleveland lodge, copies of which will be sent to sister lodges for indorsement, will explain their position, and set forth the especial provisions to be embodied in the new sailing rules which they desire.

We, as lake pilots, feel sure that the rules issued last spring forbidding the use by steamers of passing signals in thick weather invite danger in navigating the crowded waters and thoroughfares of the Great Lakes.

We ask that these rules be suspended and we suggest the following as cardinal principles to be followed in formulating rules applicable to the lakes.

That in thick weather the only fog signal to be used by a steamer or craft propelled by machinery shall be three distinct blasts of the whistle with an interval of one minute.

That every vessel in tow of another vessel shall, in thick weather, make a fog signal at intervals of one minute by sounding four bells on a good and efficient and properly placed bell as follows: By striking the bell twice in quick succession, followed by a little longer interval and then again striking twice in quick succession (in the manner in which four bells is struck in indicating time.)

That the following passing signals be used in all weathers: One blast to mean "I am directing my course to starboard," two blasts to mean "I am directing my course to port" and that neither of these signals be ever used with any other meaning or purpose under any circumstances.

That each such craft when inspected by government officers be provided with a plain whistle which can be heard in ordinary weather at least two miles, and that such whistle be used for making all signals to other vessels, except that all raft towing steamers shall be provided in addition to such plain whistle with what is known as a modoc or schreeching whistle, which shall always be used in making the fog signal of such steamer when towing a raft.

That a steamer with a raft in tow, instead of the vertical bright lights required for other towing steamers, shall carry two mast headlights arranged in a horizontal position athwartships at least eight feet apart, and so fixed as to be visible all around the horizon at a distance of at least five miles.

That each vesssel in a tow, including the steamer, shall carry a single bright light at her stearn which shall not be visible forward of the beam.

That in all narrow channls (where there is a current) and in the rivers St. Marys, St. Clair, Detroit, Niagara and St. Lawrence, where two steamers are meeting, the decending steamer shall have the right of way, and shall before the vessels shall have arrived within the distance of one-half mile of each other, give signals signifying which side she elects to take.

The following resolution, which was also presented met with a unanimous adoption.

"Resolved that section 4404 of the revised statutes be revised or amended so that there shall be an equal representation of pilots on the board of supervising inspectors, who shall be selected for their skill in navigation and the handling of steamers on rivers and the Great Lakes."

THE MARINE RECORD

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CLEVELAND, O., JANUARY 10, 1895.

THE masters' and shipowners' associations of England have been successful in having the international agree ment relative to fog signals and which were to go into effect March next, postponed indefinitely. The proposed system involved a number of sounds in fog or thick weather to indicate the course a vessel was steering and practical men considered that the code of signals was too complicated for safe use.

IN accepting the office of president of the Lake Carriers Association for the ensuing term, Mr. Livingstone began his speech of acceptance with the following stanza, which he said he had once heard Senator Palmer employ as an illustration:

"There are billows far out on the ocean
That never will break on the beach;
There are waves of human emotion
That can find no expression in speech."

Mr. Livingstone also stated that he would rather be elected president of the Lake Carriers' Association than be honored with the electlon of governor of Michigan.

MASTERS. pilots and engineers are being made and licensed each year at a pretty lively gait, and it would be in order to ask if the qualifications might not in future be advanced so that a higher status of skill could be assured. Relative to deck officers, the Shipmasters' Associations ought to petition the Board of Supervising Inspectors to increase the servitude limit to about thirty months at the least, before a candidate was eligible to appear for a license at the licensing board, besides which, the present inadequate if competitive tests ought to be abolished and something more like a skillful, technical examination be adopted.

IN the general consultations and criticisms on the present sailing and steering rules as adopted by the Board of Supervising Inspectors, the fact seems to be lost sight of that vessels (steamers) meeting end on, or nearly end on, have no alternative but to port. It is not a question in this case of blowing a steam whistle to signify which side the meeting steamers wish to take, the law is compulsory and it is imperative that both should port. Again, in calling attention to the passing signal it ought to be clearly and thoroughly understood that the steamer which has the other on her own starboard side gives way, and this, too, whether signals are exchanged or otherwise, although the passing signal has also been made imperative, at least, thirty years ago it was considered a safe rule to be made compulsory with the result that navigation is now considered dangerous if the passing signal is not given on all occasions, a feature for which the Board of Supervising Inspectors and their ancient rules are alone to blame. It is almost a foregone conclusion that shipmasters will be compelled to get their vessels over the ground without the aid of an enactment empowering them to use passing signals in fog, as a legislative code would never permit any situation whereby the wording of the act might justify a casualty, nor are the variety of sounds indicating the compass course being steered acceptable to the present generation, notwithstanding the rulings of the international marine conference.

ANNUAL MEETING OF THE LAKE CARRIERS' ASSOCIATION.

Promptly at 10 o'clock Tuesday morning President Corrigan wielded the gavel to call the members of the Lake Carriers' Association to order, in the parlors of the Cadillac Hotel, Detroit, Mich.

Secretary C. H. Keep read the minutes of the last annual meeting, after which the report of the board of managers was read, as follows:

TO THE MEMBERS OF THE LAKE CARRIERS' ASSOCIATION:

The board of managers of the Association submits herewith its annual report of the proceedings and operations of the Association during the past year.

It is now three years since the Lake Carriers' Association was re-organized and placed upon a basis where it practically included the whole business tonnage of the lakes. During the first year the Association tonnage was 580,000 tons; last year it exceeded 600,000 tons; for the year just closing the Association tonnage is 590,136 tons. This is slightly less than last year's tonnage, but more than the tonnage of 1892. The slight decrease in tonnage is probably less than would naturally be expected from the hard conditions which have prevailed in the lake carrying business during the past two years. Even the slight decrease reported is due not in failure of carriers to join the Association, but more to the actual destruction of some of the vessels enrolled during the preceding year, and the withdrawal of one or two fleets of moderate size engaged in a special business on a special route, and not participating in the general carrying trade. Such vessels not being in position to use the shipping offices of the Association, or the private lights which it maintains in the rivers, and not sharing to the same extent as others in the benefits derived from the legislation proposed by the Association, it is not, perhaps, surprising that during a season when it was hard to make receipts equal expenses, that they should have withdrawn temporarily from the Association. It is a well known fact, also, that very few vessels were built last winter, so that there is very little new tonnage in the Association this year to take the place of vessels lost or out of commission, and such new tonnage as was built last winter was not hurried into commission, and generally did not begin until the middle of the season, so that it has not appeared upon our rolls this year. On the whole, therefore, the fact that nearly 600,000 tons have continued to contribute their money and support to this organization is gratifying to the board of managers.

At the annual meeting last year the dues of the Association were reduced 25 per cent., namely, from four cents per net registered ton to three cents. This is the first year in the history of the Association that some deficit, large or small, has not been carried over, and in view of the decreased receipts for the year just closed the board of managers congratulates the members of the Association upon the financial condition.

Shipping offices of the Association have been maintained during the past year as heretofore at Cleveland, Chicago, South Chicago, Buffalo, Ashtabula and Toledo. The very general use which is made of these offices is shown in the following condensed report taken from the annual report of chief shipping master Rumsey for the season o6 1894:

Put on board at Cleveland, 2.897; sent from Cleveland to other points; 409; put on board at Chicago, 2,833; sent from Chicago to other points, 67; put on board at South Chicago, 1,089; put on board at Buffalo, 1,300; put on board at Ashtabula, 1,109; put on board at Toledo, 352; total, 10,056.

The service given by the shipping masters has been satisfactory and no complaints from members have been received.

Committees were appointed to use their efforts to secure reductions in the cost of trimming and unloading ore cargoes. These committees went industriously to work and conferred with the railroad, ore and dock companies at the various ports of loading and uuloading. After numerous conferences, reductions in the charges of unloading ore from 16 cents to 13½ cents per ton, and in the charges for trimming ore from 4 cents to about 2½ cents per ton, were made by the companies employed to load and unload cargoes. Altogether, the vessels secured a reduction of about 4 cents per ton on 7,000,000 ton of ore. It will, perhaps, be a surprise to vessel owners who have not figured the matter to find that this had effected a saving to vessels during the season just closed of $280,000.

A committee was also appointed at the last annual meeting to confer with the Elevator Association at Buffalo, with a view to securing a reduction in the shoveling charges on grain cargoes at that port. After a protracted negotiation which was very skillfully conducted by the Association's committee, a reduction of shoveling charges amounting to 25 cents per thousand was obtained. A little over one hundred million bushels of grain was unloaded at Buffalo during the season of 1894, and the shoveling charges thereon were $25,000 less than they would have been had the rate of 1893 remained in force. The committee appointed to secure a reduction in the price of discharging lumber at Cleveland, secured a reduction from 28 to 25 cents per thousand straight (all other classes in same proportion). They also secured a change in the old rule by which the vessel paid 5 cents per thousand for every foot depth of hold over 12 feet upon the whole cargo. In place of this charge a uniform charge of $5 per vessel exceeding 12 foot depth of hold was made. This reduction in cost of unloading lumber at Cleveland was also extended to several other lumber ports.

In legislative matters, the work of the Association during the past year has not been so extensive as heretofore. A large number of the legislative projects to which this Association was strongly committed have become accomplished facts. The important results aimed at have been secured in these cases, and this year no new projects of equal importance have come forward to take their places. Nevertheless, some important results have been secured. Congress appropriated at its last session $156,000 for new lights and aids to navigation on the Great Lakes, a larger amount than has been appropriated in any recent year. Provision was made for lighting the new Hay Lake channel, and appropriations were made for a light and signal at Forty-Mile Point, Lake Huron, and on South Bass Island, Lake Erie, together with some less important aids.

Another legislative matter which kept the attention of the Association during the last session of congress was the bill known as the "Lockwood immigration bill." Certain sections of this bill applied solely to the employment of seamen on the Great Lakes. The bill made it unlawful for vessel owners or masters to employ men on lake vessels unless the person so employed were citizens of the United States, who had a permanent domicile here for six months prior to their employment. To enforce this provision the bill contained a further provision making the owner as well as the master of a vessel employing any person not a citizen and not domiciled six months in this country punishable by fine and imprisonment A vigorous opposition to this bill was made by the Association, and the counsel of the Association appeared before the committee of congress which had this measure under consideration. He argued that any man who came to the United States to work should be entitled to choose the employment for which he was best fitted, and that to forbid him to accept employment on lake vessels and to forbid the owner of such a vessel to employ him, was a tyrannical interference with the rights of both parties, for which no justifying ground could be given. The second ground of opposition to this bill lay in its penal clauses. We regarded as an outrage legislation which would make a vessel owner guilty of crime and liable to fine and imprisonment for crime, when circumstances were such as to make violation of this immigration law a matter entirely beyond the owner's control.

The disappointment of the year has been the failure of the Association to secure the passage of a bill properly regulating the towing of rafts. At the last session, legislation carrying into effect the recommendations of a board of United States engineers—appointed to consider this subject—was introduced in the house in connection with the river and harbor bill. This bill passed the house with the restrictive legislation attached, and it was hoped that it would pass the senate, also. In the senate committee, however, the interests opposed to the regulations of raft towing succeeded in having these provisions radically amended and practically deprived of all that was good in them, leaving the matter to be dealt with afresh. At the session of congress which has just met a separate measure restricting raft towing, in precisely the same form as the provisions inserted by the house of representatives in last year's river and harbor bill has been introduced, and an effort will be made to procure its passage through congress. We believe that nothing can prevent a success of this effort except the short time which remains before March 4, when congress must adjourn.

At about the time when the immigration bill was pending at Washington, an elevated railroad at Chicago was applying to the secretary of war for permission to construct a bridge across the Chicago River, between Wells and Clark streets. The proposed bridge was to have a center abutment and this Association would have prevented vessels from passing over the La Salle strect tunnel in the center of the river, where the available draft of water is greatest. The construction of such a bridge at the proposed point would have done material damage to the vessel interests, and the Lake Carriers' Association was vigorous and prompt in its opposition. Very strong pressure was being brought to bear upon the war department for an immediate decision favorable to the proposed bridge. The views presented by the vessel interests, however, prevailed with the secretary of war to the extent that while he approved of a bridge at the proposed point, he forbade the construction of the ab utment in theriver.

A committee of the Association, consisting of the treasurer, counsel and secretary, visited Washington in October for the purpose of conferring with the officers of the light-house board. The committee was most courteously received by Commander Wilde, the new naval secretary of the board, and the matter of new lights and signals on the Great Lakes was talked over at length.

I think that we may feel sure that the light-house establishment will give every assistance in their power to vessels remaining in commission during December, and that they will change their instructions from time to time so as to make them conform with the prevailing practice of underwriters and vessel owners.

Among the new matters which come before the Association this winter and merit the attention of the annual meeting, perhaps the first in importance is the effect of the Chicago drainage canal upon the level of water in the lakes and their connecting rivers. Much has been written in the public press during the past few months

upon this subject. Well known engineers have given their methods of computation to the public and predicted over their signatures that the operation of the Chicago canal would lower the levels of Lake Michigan and Lake Huron by about eight inches, and produce corresponding effects in Lake Erie and Lake Ontario. Such a result as this decreasing the available draft of water in many important harbors by eight inches and nullifying to this extent the effect of the channel improvements in the Detroit and St. Clair rivers would be a very serious blow to the shipping interests. Already owners are building expensive vessels especially designed for service after the completion of the work at the "Soo" and at the various points covered by the 20-foot channel project. The effect of this lowering of the lake levels would also be felt by the smaller vessels as well as the larger; in fact, it might operate especially to the disadvantage of smaller craft. At the important ports where the largest boats transact their business, government and municipal dredging might compensate for the lowering of the water levels, but in the lumber shipping ports and smaller harbors where the smaller craft transact much of their business and where the available draft of water is now barely sufficient, a lowering of the lake levels would necessitate harbor dredging by the government, which it might take many years to provide for and execute. On the other hand, it has been asserted by various engineers that the operation of the drainage canal at Chicago would not produce any such lowering of the water. The very great interests involved make it highly important that there should be an examination of this subject by a commission of government experts, to the end that the facts may be authoritatively determined and intelligent action taken to reduce the damage to a minimum. This subject is international in its bearings, and the United States government cannot avoid its fair responsibility for permitting such a diversion of the waters of the Great Lakes from their natural outlets, as will diminish the draft of water in Canadian harbors and in Canadian government canals; nor should it be forgotten that the Chicago sanitary district which is building the drainage canal, is building it solely under the authority of the State of Illinois, and that the act of the Illinois legislature, giving such authority, expressly makes the district liable for all damage to real estate within and without such sanitary district, which may be overflowed or otherwise damaged by the construction and use of the drainage canal.

A petition extensively signed by the masters of lake vessels, has been presented to the Association asking that the government purchase the private dock owned by the Union Dock and Coal Co., at the Soo, for the purpose of improving the eastern approach to the St. Mary's Falls Canal This is not a new proposition, but the increase of the business of the canal, accompanied as it has been during the past season by increased delay at the lock. caused by long lines of vessels awaiting their turn to lock through, has given the matter greater prominence than ever before. If the dock in question is to be purchased by the government, the appropriation of the money should be coupled with an express condition that the property so purchased should be used solely as an approach to the canal, and not for the transaction of local business. Other facts should also be taken into consideration—The lighting of the Hay Lake channel is expected to prevent boats from arriving at the lock in bunches as heretofore; it is also expected that the Canadian lock will be in operation during the coming season; and that by the fall of 1896, the new lock on the American side will be ready for use. All these facts have a bearing on this question. It has also been suggested that a very satisfactory eastern approach to the two locks on the American side of the St. Mary's River would be afforded by the construction of a dock or pier extending easterly from the little point of land between the two American locks.

In October a committee, consisting of the counsel, treasurer and secretary of the Lake Carriers' Association, consulted with the lighthouse authorities at Washington to secure the support of the light-house board for ten new aids to navigation on the Great Lakes.

In response to a request from the light-house board for information showing the necessity of each of the proposed aids to navigation the secretary of the Association prepared a printed brief, taking up each light and signal in detail, and this brief has been sent to the light-house board and to a very large number of congressmen. Letters have also been written asking congressmen to support the requests of the Association for appropriations sufficient to erect these aids to navigation, and a large number of replies has been received indicating that we shall have the support of a large congressional contingent. The secretary of the Association will go to Washington to urge this matter further, and the board of managers hopes for good results.

The continuing improvement in land transportation is constantly decreasing the cost of carrying freight by land from western points to the seaboard. The completion of the 20-foot channel will place the lake route beyond the reach of rail competition as far as Buffalo. Water transportation east of Buffalo, however, is in a most unsatisfactory condition. The Erie Canal has been deteriorating rather than improving in condition, and it has been heretofore found impossible to secure appropriations for any radical deepening of the canal channel. At the Election in November an amendment to the New York State Constitution was adopted permitting the State to borrow money for the improvement of the canal system under certain conditions. This amendment was passed by a greater majority than any of the other constitutional amendments, and its passage was highly important, principally for its moral effect in showing that the friends of the canal in the State of New york are numerous and that a project for its improvement would be a popular one. At the same time, before a canal debt can actually be incurred, the question must again be voted upon by the people of the state, and it is not expected that the rural parts of the state, distant from the line of the Erie canal will discontinue their opposition to canal improvement. As the time for the completion of the 20-foot channel draws near, it becomes highly important for the Lake Carriers' Association, which has a very large interest in cheap transportation east of Buffalo to consider what its attitude is to be towards the various schemes now proposed.

In conclusion, the board of managers again congratulates the members of the Association upon the success which it has achieved during the past year, and desires to place on record its opinion as a board that such success has been in a great measure due to the inspiriting energy and faithful services of the retiring president of the Association.

At the conclusion of the reading of the report of the board, a resolution returning thanks to President Corrigan for the tireless manner in which he has attended to the duties of his office during the past year, was introduced by Capt. George P. McKay, of Cleveland, and was adopted unanimously by a standing vote.

The nomination and election of officers being next in order, H. A Hawgood, of Cleveland, presented the name of Wm. Livingstone, of Detroit, for president. The nomination was supported by M. M. Drake, on behalf of the Buffalo members, by J. S. Dunham for Chicago's contingent, by J. C. Ricketson, representing Milwaukee members and George C. Hadley, for Toledo.

The election was made unanimous by a standing vote amid great enthusiasm. In assuming the duties of president, Mr. Livingstone said he would be less than human if he did not appreciate the honor conferred upon him. "When I look back over the past," he said, "and remember the very first meeting of vessel owners held in Detroit, and also the great bridge fight which called us together in 1873, I am gratified at the results of those first efforts. An attempt was made at that time to bridge the Detroit River, and the vessel owners at this port organized to prevent it. They subsequently enlisted the support of vessel owners at other ports, and the bridge was not built simply because the opposition of vessel men, many of whom remained constantly at Washington during that year to block the passage of the bridge bill. The seed planted at that time has made such a magnificent association as this possible. I have only one suggestion to offer," said Mr. Livingstone in conclusion, "and that is if this Association wants anything in the way of legislation, now is the time to go after it. Here in Michigan we have elected twelve Congressmen, every one of whom I know personally, and know that they will favor anything we may ask within reason. The same can be said of our two Senators, one of whom you know well, and the other, Senator Burrows, I know is no enemy of marine interests. Again I thank you for this honor, and assure you that I would rather stand on this floor in this exalted position among the associates of a lifetime, than to be governor of this beautiful state of Michigan."

On motion of ex-president Corrigan, a committee, consisting of E. M. Peck, James Davidson, J. C. Ricketson, A. M. Fitch, P. P. Miller, J. W. Moore and G. C. Hadley was appointed to nominate a board of managers, and the convention took a recess for fifteen minutes to enable the committee to prepare its report.

After recess the committee made the following nominations:

For vice presidents, J. C. Gilchrist, Cleveland; A. A. Parker, Detroit; S. D. Caldwell, Buffalo; Wm. M. Egan, Chicago; F. N LaSalle, Duluth; Thomas Cranage, Bay City; W. S. Brainard, Toledo; E. D. Carter, Erie; J. C. Ricketson, Milwaukee; F. J. Firth, Philadelphia.

Finance Committee.—H. M. Hanna, H. H. Brown, James Corrigan, H. A. Hawgood, Thomas Wilson, M. A. Bradley, J. C. Gilchrist, Cleveland, O; E. M. Peck, D. C. Whitney, Detroit, Mich.; W. P. Heury, J. H. Brown, Buffalo, N. Y.; David Vance, R. P. Fitzgerald, Milwaukee, Wis.; John G. Keith, J. S. Dunham, Chicago, Ill.

Aids to Navigation.—David C. Carter, Detroit, Mich.; W. S. Mack, George P. McKay, H. G. Dalton, B. L. Pennington, W. C. Richardson, Thomas Wilson, John W. Moore, Cleveland, O.; W. M. Egan, Chicago, Ill.; Frank Owen, Ogdensburg, N. Y.; A. W. Colton, Toledo, O.; James Davidson, Bay City, Mich.; Alvin Neal, Port Huron, Mich.; E. T. Evans, Buffalo, N. Y.; Washington Bullard, Buffalo, N. Y.

Committee on Legislation—S. C. Caldwell, James Ash, E. T. Evans, P. P. Miller, John Gordon, Washington Bullard, Edward Smith, Buffalo, N. Y.; H. M. Hanna, James Corrigan, Cleveland, O.; William Livingstone, jr., James Millen, Detroit, Mich.; Jesse Spaulding, Chicago, Ill.; C. A. Eddy, Bay City, Mich.; Alex. McDougall, Duluth, Minn.; F. J. Firth, Philadelphia, Pa.

The only change made in the board of managers was the substitution of W. E. Chapman, of Sandusky, for R. E. Shuck, of the same place, and the addition of the following members: W. S. Mack, C. E. Benham, P. J. Minch, John Corrigan, of Cleveland; James J. Rardon, James A. Calbick of Chicago; B. Boutelle, Thomas Cranage and J. W. McGraw, of Bay City, and F. N. La Salle, of Duluth.

On motion Capt. Wilson, of Cleveland, the name of finance committee was changed to executive and finance committee.

The treasurer's report was read and showed that the association had paid all its debts. The receipts and disbursements were about $17,000.

On motion of Capt. W. S. Mack, of Cleveland, a committee of seven was appointed to consider the new pilot rules adopted by the Shipmasters' association.

On motion of President Livingstone, who had retired temporarily from the chair, the association proceeded with its election of officers, with the result that all were re-elected as follows: Secretary, Charles H. Keep, of Buffalo; treasurer, George P. McKay, of Cleveland; counsel, Harvey D. Goulder, of Cleveland.

President Livingstone then invited the members to be his guests at the Detroit Opera House and the invitation was accepted.

President Livingstone called the meeting to order on Wednesday morning. The committee on resolutions was in session several hours discussing the use of passing signals in a fog. The new code was prepared by the members of the Cleveland Lodge of the Shipmasters' Association and were submitted to the lake carriers for approval before being presented to congress. Cap. M. M. Drake, of Buffalo, who is a member of the committee, is opposed to any change in the rules and thinks it is safest not to have any passing signals in thick weather. Capts. Mack and Benham and other Cleveland members of the committee made a strong fight for the change and succeeded in getting a favorable report. The matter will be taken up again by the three standing committees at a meeting to be held at Cleveland, Saturday, Jan. 19.

Chairman James Millen, of the fuel committee, made the following report: That vessel owners prohibit themselves by agreement from purchasing or obtaining fuel from coal shippers under any circumstances at Buffalo, directly or indirectly, and to further bind this arrangement, a contract be entered into, if satisfactory terms can be had, with fuel contractors, not shippers, for the entire supply of fuel at Buffalo, at proper prices and on satisfactory terms as to quality, dispatch, etc. A lengthy and inclusive agreement was drawn up and signed by nearly all present. The report was taken up in sections and adopted as read.

The question of giving the steamers North West and North Land of the North Steamship Co., and other passenger steamers preference in passing through the Sault Canal was brought up and while a few of the members were in favor of it many thought it would be a discrimination against the regular freight traders and others stated that if favorable action was taken they would not live up to it. The matter was postponed indefinitely on a motion of A. A. Parker.

A request from the Atlantic Coastwise Association was read, asking the Association to take action opposing the Fithian free ship bill. The matter was referred to the legislative committee.

The legislative committee was instructed to confer with the light-house board with a view of securing a better apparatus for the fog signal station at White Fish Point.

A resolution asking for a marine hospital at Sault St. Marie was adopted.

The following telegram was sent to Congressman Lockwood: "The Lake Carriers' Association, in annual meeting assembled in Detroit, earnestly urges you to secure, if possible, through the aid of Mr. Catchings, the early passage of the raft bill by the House, so that we may secure a hearing before the senate committee on commerce, and, if possible, secure the benefits of the bill before navigation opens."

Capt. James Davidson, of Bay City, stated that Cleveland brokers had much to do with cutting rates by making contracts for large blocks of coal and ore and peddling cargoes out at a lower rate than the original one.

Capt. Benham defended the brokers and said they were not all doing that business. The matter was referred to the executive committee.

H. A. Hawgood, J. C. Gilchrist, John Rice, A. A. Parker and Ed Smith were appointed a committee to confer with the underwriters at their annual meeting at Cleveland, on valuations.

A committee composed of J. C. Gilchrist, M. A. Bradley, M. M. Drake, C. E. Benham and Waldo Avery, was appointed to meet with dry dock men at Buffalo, January 17, and make an effort to secure a reduction in dock charges.

A resolution protesting against the confirmation of J. H. Galway as supervising inspector of steamboats of the eighth district by the senate was adopted.

The Association then adjourned, sine die.

SENATOR Perkins, of California, has given to the Washington Geographical Society an interesting relic in the shape of the head of a harpoon that was found in a whale taken in Behring Sea in 1890, bearing the name of the old whaler, Montezuma. This vessel was one of the old ships that were filled with stone and sunk in Charleston harbor by the Federal government during the war of the rebellion, and had not been in Behring Sea for ten years previously, so that for many long years the whale carried this weapon with it in all its wanderings.

NOTES.

THE placing of a Russian order in Pennsylvania for 12,000 tons of armour plates calls forth the interesting remark from the chairman of the English Iron and Metal Trade, that Sheffield loses through this contract being placed in the States, in labor alone the sum of $25,000,000 to $30,000,000. The next step should be to discount the British shipbuilders in the cost of construction for iron and steel vessels, sail and steam.

FEW people along our sea coast have any idea of the value and extent of the shipping interests of the Great Lakes. Shipbuilding there is a great industry, the yards being many and generally busy with new vessels that are growing in size and quality. Our inland navigation may place a limit to the size of steam vessels built on the Great Lakes, but if the builders there keep on extending their plants they will be coming to the seaboard for orders.—The New York *Maritime Register*.

THE Pennsylvania Brass Works, Erie Pa., brass founders and manufacturers of brass work for engine and boiler builders, have just issued their No. 2 catalogue and price list of their specialties in brass steam fittings. The firm manufacture the automatic mocking bird steam whistle and valves, air, water, steam and gauge cocks, lubricators, and kindred appliances. The aim of the works is to excel in those specialties which they manufacture, and by prompt attention to orders merit the lasting good will of their increasing patronage.

WM. PORTER'S SONS, manufacturers of lamps, lanterns, etc., for the marine trade, 271 Pearl street, New York, established 1843, have just issued their illustrated catalogue and price list for 1895. The catalogue which is a 13½ by 10¼ inches, contains 30 pages, is profusely illustrated, having as many as fifteen cuts of various types of lamps on a page and is a perfect epitome of everything in the lamp and lantern line for the marine and railroad trade. The Messrs. Porters are well and favorably known from the Atlantic to the Pacific, and furnish estimates for the complete lighting of steamers, ships and yachts.

TWO pretty naphtha yachts, says the Jacksonville, Fla. *Citizen*, are the Lilly, belonging to C. F. Fleischman, of Cincinnati, and the Truant, belonging to H. L. Tarall, of New York. The two boats left New York on November 10, and came down the coast by the inside waterway. The boats have a 6 horse-power naphtha engines each, and are capable of making ten miles an hour. The Lilly is 65 feet long and the Truant 60 feet. Each of the boats consumes 10 gallons of naphtha per hour, and each carries 500 gallons. They were both built by the Morris Heights Gas & Power Co., of New York City.

THE German asbestos goods having taken twenty first prizes at the World's Columbian Exposition, there has now been established a manufacturer's agency at 207 and 209 Lake street, Chicago, Ill., where asbestos in every form and for almost every purpose may be found. The agent, Mr. Ed. Wertheim, is the son of Louis Wertheim, the most extensive manufacturer of asbestos in the world, and a gentleman thoroughly conversant with the manufacture in all its details, besides which he is gifted with a more than ordinary share of business proclivities so that the Wortheim asbestos is likely to cut quite an extensive figure in the United States trade in this specialty.

PHOSPHOR-COPPER and phosphor-bronzes are being more and more extensively used. The peculiar change which copper and bronzes undergo when fluxed with phosphorus are not well understood, but the effects are fully appreciated; strength and toughness are increased and liability to corrosion decreased. For these reasons phoshor-bronzes are being used very largely in marine and railway construction. The charging of the phosphorus into the molten metal must be done with considerable system and care. This part of the operation may be safely and easily accomplished by the aid of phosphorus chargers or phosphorizers made of plumbago. The Jos. Dixon Crucible Co., Jersey City, N. J., who make plumbago goods in great variety for metallurgical purposes also make these phosphorizers in different sizes, suited to the size of the crucible in which the fluxing is to take place.

THE annual volume for 1895, of the Record of American and Foreign Shipping, is now ready for delivery. The present issue contains full particulars of about 18,000 vessels of all classes and nationalities, rules for the construction of all kinds of vessels, machinery, boilers, etc., also rules for the survey and classification of the same. It gives a large amount of information valuable to underwriters and all persons interested in shipping, as well as a complete list of shipyards, dry docks, marine railways, etc., throughout the United States. The United States Navy Department has indorsed its rules for the construction of iron and steel vessels and the important boards of underwriters in the United States, and shipping men generally, regard the work as a standard register and classification of shipping. It is published by the American Shipmaster's Association, 37 William street, New York.

WE have received from the office of naval intelligence, navy department, Washington, D. C., the latest annual Notes on the Year's Naval Progress, a volume of 460 pages, fully illustrated. The articles which will prove of most interest to our readers are the following: Notes on Ships and Torpedo Boats; Machinery and Boilers in Her Majesty's Ships; the Revolt in Brazil; Qualities of Recent First-class Battle Ships; Some Naval Manœvres of 1894; Chapter VI contains a 44-page article on Marine Boilers, by Robert S. Griffin, passed assistant engineer, United States Navy. This article is one of the most interesting and valuable papers on water tube boilers that has ever been published in this country. The author describes and illustrates with half-tone cuts, drawings and wood engravings, the following patent tubulous boilers: Ward, Roberts, Almy, Mosher, Yarrow, Thornycroft, Belleville, Du Temple, Towne, Seabury, Warrington, McBride & Fisher, Babcock & Wilcox, Normand, White, Fleming & Ferguson, Seaton, etc.

THE MONITOR VAPOR ENGINE AND POWER CO., Grand Rapids, Mich., manufacturers of launch engines and launches with gasoline for propelling power, have just issued their 1895 illustrated catalogue and price list. A bearing argument in the use of this class of small tonnage is the fact that they are clear of any government inspection, so that licensed engineers or pilots are not required to handle them. The Monitor launch engine uses the vapor of gasoline explosively in the cylinder, for power, having an explosion or power impulse each revolution. The upstroke of the piston draws air and vapor into the base of the engine, where they are mixed, forming together an explosive vapor, which by the down stroke is compressed and allowed to pass through the throttle and poppet valves to the cylinder above the piston. The upstroke compresses this charge above the piston (at the same time drawing into the base a new charge) and near the upper center the first charge is ignited, producing the impulse. This operation is continuous and occurs each revolution. The quantity of vapor allowed to pass through the throttle determines the speed of the engine. Ignition is caused by an electric spark in the firing chamber of the cylinder, the current being furnished by a small chemical battery, which can be placed in a locker. The batteries are very simple and easily renewed and cared for. They are of special construction and of great and continuous power. The carburetor or tank which is carried in the bow compartment, shows at a glance the quantity of gasoline on hand and is connected to the engine by means of patent safety tubes, through which the vapor only passes, there being no fuel oil in or near the engine.

THE PROPELLOR AS A LOG.

We learn that Capt. Ruthven of England has "tabulated rules" to find how many revolutions are required for a given speed of a screw steamer. Subjoined is a part of the tabulation:

$$\frac{\text{Required speed in knots } 6080 \times 100}{60 \times \text{pitch} \times (100 - \text{slip per cent.})}$$

Example: Let the speed required be 15 knots, pitch 25 feet, slip 10 per cent.

$$\frac{15 \times 6080 \times 100}{60 \times 25 \times 90} = \frac{608}{9} = 67.5 \text{ revolutions.}$$

Of course the slip of the screw must be estimated, and this may be done by deducting the distance the ship actually makes in a stated time from the distance she would make if there were no slip.

Engineers have a method (not tabulated) which is much simpler, and reaches the same end. This is to multiply the pitch by the revolutions per minute, or per hour, and divide the product by 6,080, the number of feet in one knot; this gives the distance traveled in one minute or in one hour, according to the number taken, minus slip.—*The Engineer, New York.*

BUFFALO WINTER MOORINGS.

The list of lake vessels laid up at Buffalo, N. Y., this winter numbers 122 all told, 96 of which are steamers chiefly line boats, and 26 sail vessels and consorts.

Steamers—Arabia, Badger State, Boston, Chicago, Commodore, Empire State, Harlem, Idaho, Montana, Syracuse, Vanderbilt, Gilbert, Weed, Rochester, Tioga, Oswego, Avon, Portage, W. H. Stevens, S. F. Hodge, India, China, Japan, Gordon Campbell, Alaska, Clarion, Lehigh, Delaware, Wissahickon, Lackawanna, Scranton, Russia, Grand Traverse, Arthur Orr, Wyoming, Florida. Thomas Maytham, America, Northern Queen, North Star, North Wind, Northern Wave, North West, Pillsbury, Washburn, Nebraska, H. E. Packer, R. A. Packer, Clyde, Oceanica, Fred Mercur, Tacoma, Seneca, E. P. Wilbur, Saranac, Samuel Mather, J. B. Colgate, E B. Bartlett, 103, 107, 118, 130, H. Chisholm, Hesper, Aurora, Missoula, City of Glasgow, Italia, H. A. Tuttle, John Craig, John Mitchell, City of Naples, Gladstone, R. E. Schuck, G. G. Hadley, City of Genoa, John B Lyon, Neshoto, Cumberland, Louisiana, A. P. Wright, S. S. Wilhelm, Bulgaria, E. C. Pope, George King, City of Rome, Niko, R. Mills, Tampa, Wotan, J. H. Shrigley, C. F. Curtis, J. B. Ketcham 2d, Lizzie Madden, E. S. Tice, Norfolk.

Sail vessels—Adriatic, C. L. Young, Levi Rawson, M. W. Page, Churchill, Michigan, N. C. Holland, T. S. Fassett, Isabel Reed, Columbian, Wenona, Goshawk, H. J. Webb, Manitowoc, Kingfisher, A. Gebhardt, Groton, F. B. Gardner, Tailor, Oneonta, Allegheny, John Magee, L. W. Drake, Nassau, Maria Martin.

Buffalo has an unusually-large list of canal-boats in winter quarters aggregating 201 craft. If the closing days of canal navigation had offered only a fair rate of freight the majority ol these boats would have wintered in New York and held their grain until spring.

THE TRADESMAN ANNUAL.

The South will never be short of, or lack the well directed energy of an industrial champion as long as *The Tradesman*, Chattanooga, Tenn., persists in publishing so incomparable a journal as each of its semi-monthly issues now indicates. *The Tradesman Annual*, No. 16, consisting of 218 pages, embraces contributions from many of the most eminent authorities on the main industries and chief resources of the Southern States on this continent. The subjects are dealt with in a comprehensive and thorough manner so that this grand edition virtually becomes a standard encyclopedia for Southern industrial and cognate interests. In wishing us the compliments of the reason *Tradesman* says that this magnificent number was issued in the course of regular business without in any way interfering with the current numbers of the semi-monthly publication. This, we believe, not only reflects credit on the South where the *Tradesman* has its domicile, but it dignifies trade journalism of the entire country. Furthermore, this handsomely illustrated annual voices the good judgment of Southern business interests through its scores of pages of advertising patronage, all of which are from some of the best firms extant.

POSTPONED.

The new Graham & Morton wooden freight and passenger steamer to run between Milwaukee and St. Joseph, Mich., a contract for which was to be placed at an early date is likely to be held off for some time on account of the failure of the firm to sell the steamer R. C. Reid. It is possible, however, that they may have the proposed steamer built during the summer season of 1895, so that she will be in readiness for the business of the following winter. The Goodrich Line are also holding off placing a contract for a sister ship to the Virginia to run between Chicago and Milwaukee and although they have received figures from all of the representative lake shipbuilders, nothing definite has been decided upon up to date. The large orders for the 425 feet steamers for the Minnesota Steamship Co. will not be placed until after the general meeting of the directors which will be held early this month.

THE American Steel Barge Co., of West Superior, Wis., has ordered 700 tons of steel from the Carnegie Co. and 300 tons from the Illinois steel Co. for use in the new Standard oil tank barges to be built at their yards.

WILLIAM L. BROWN, President.

WALTER F. COBB, Vice President and Treasurer.

W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

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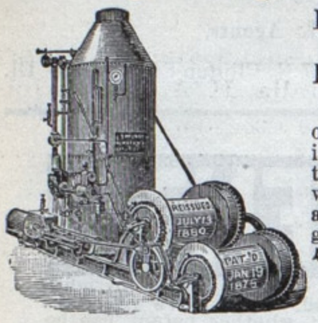

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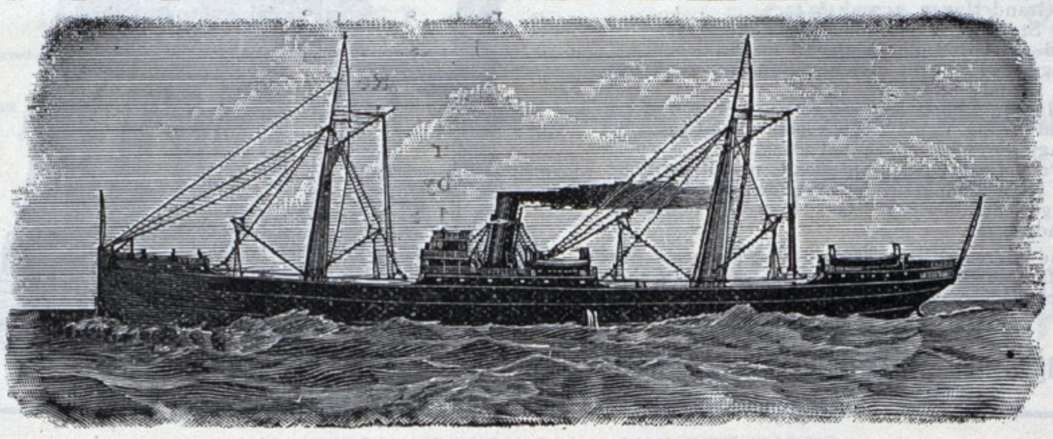

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JOHN H. ATWOOD, Assistant Secretary.

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GEORGE L. McCURDY, Manager,
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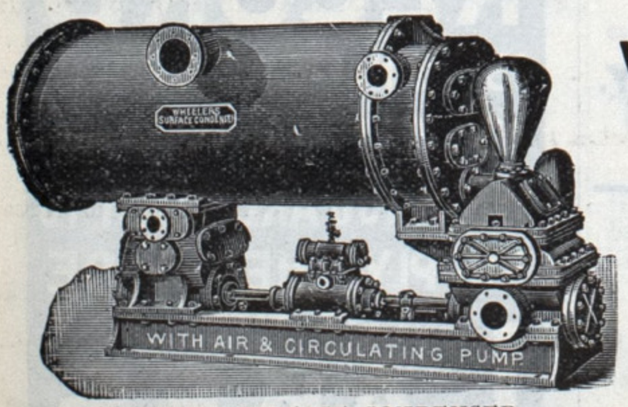

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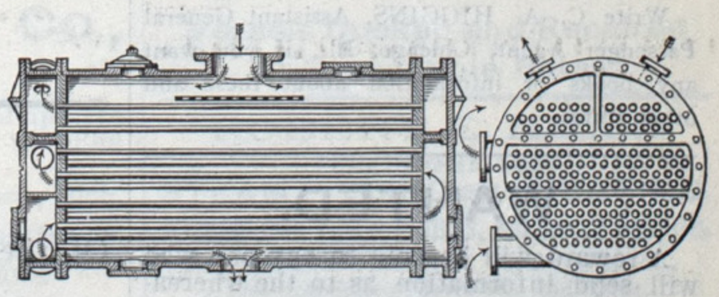

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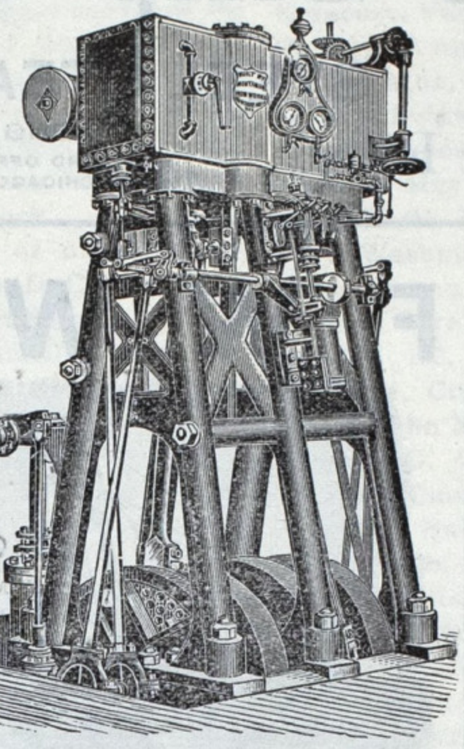

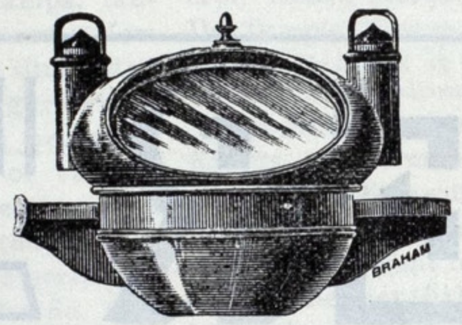

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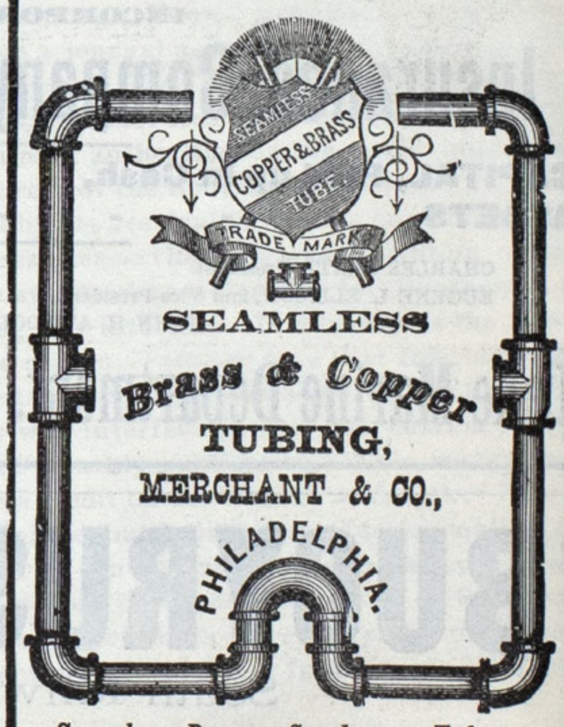

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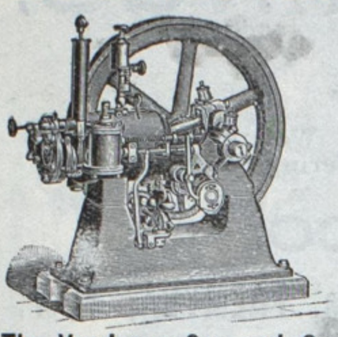

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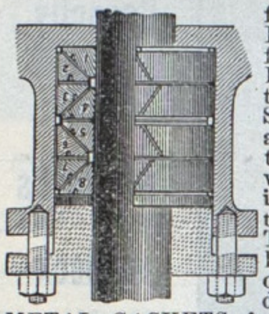

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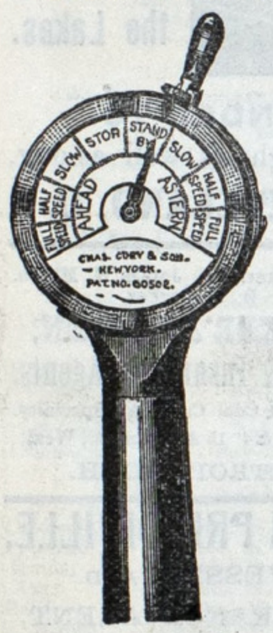

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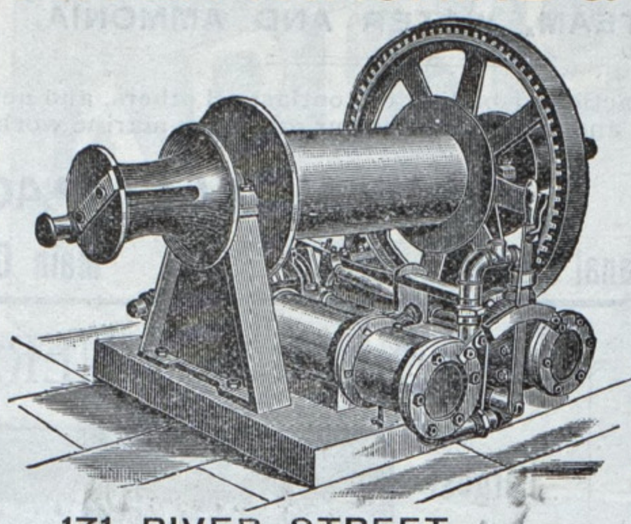

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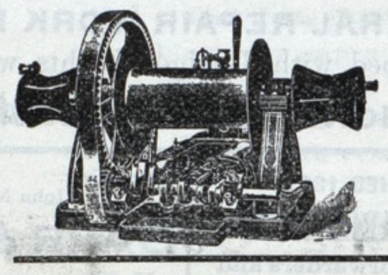

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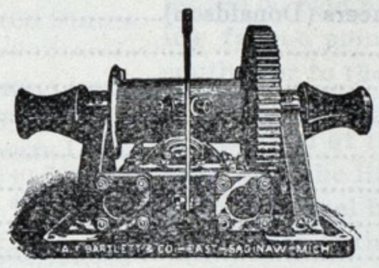

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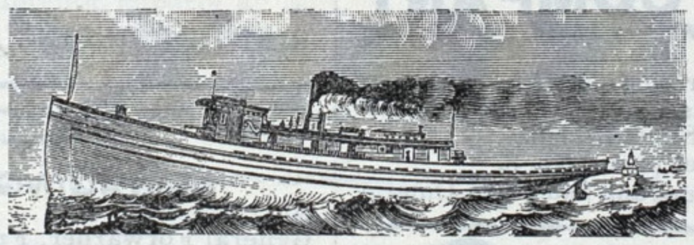

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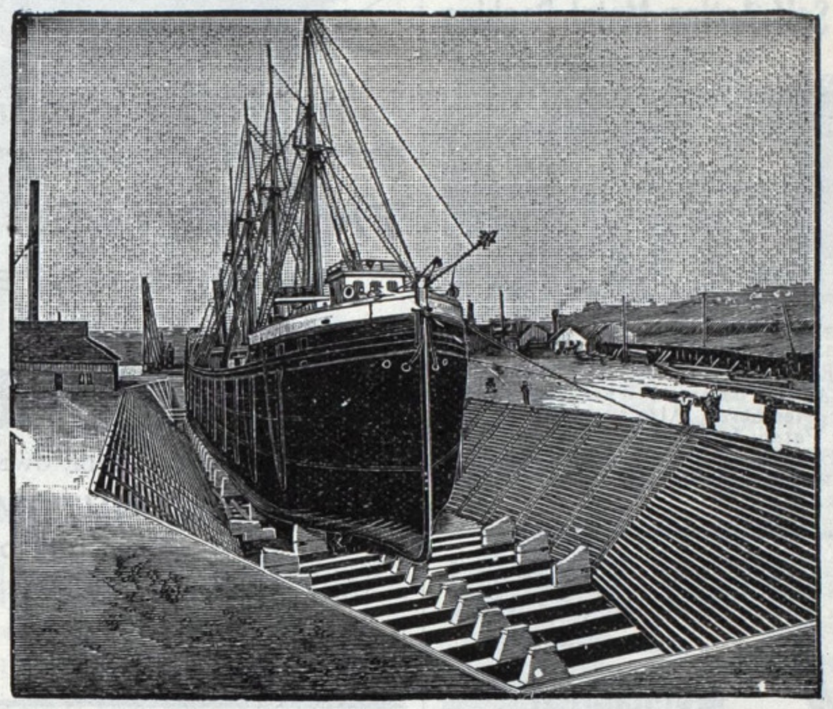

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